

12. (amended) A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:

an elongated body having a length, a first diameter at a first end and a larger second diameter at a second end opposite said first end, said first and second diameters sized to be greater than the space between the adjacent vertebrae;

said body having an outer surface that is substantially continuously tapered from said first [diameter] end to said second [diameter] end, with external threads defined [thereon] on said outer surface and extending substantially entirely along said length of said body.

17. (amended) The fusion device according to claim 14 wherein said metal [is] includes a group VB metal [or an alloy of said group VB metal].

#### REMARKS

Reconsideration of the present application as amended is hereby requested. The declaration was indicated to be defective for failing to identify the serial number of the parent application. A corrected Supplemental Declaration will be submitted in due course.

Deficiencies under 35 U.S.C. §112 were noted for claims 8, 10 and 17. Claim 1 has been amended to recite that the side walls are connected between the cylindrical portions and that the cylindrical portions extend substantially along the length of the body. The claim was also amended to state that the first diameter is defined by the opposite cylindrical portions. The indefiniteness noted

provisional ddt pat 08/4/11/017  
same invention

§101 w/4/11/017  
hollow in bit doesn't  
avoid anticipation

## WHAT IS CLAIMED IS:

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1. ~~A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:~~

~~an elongated body having a length and a first diameter at a first end sized to be greater than the space between the adjacent vertebrae;~~

~~said body having an outer surface with a pair of opposite cylindrical portions and a pair of substantially flat opposite side walls between said opposite cylindrical portions, said side walls extending along a substantial portion of said length of said body, and~~

~~external threads defined on said pair of opposite cylindrical portions of said outer surface and extending along substantially the entire length of said body.~~

2. ~~The fusion device according to claim 1, wherein said body is tapered along a substantial portion of said length and includes a second diameter at a second end thereof that is greater than said first diameter.~~

3. ~~The fusion device of claim 1, wherein:~~  
~~said flat side walls terminate near said first end; and~~  
~~said cylindrical portions and said threads are interrupted by said side walls and circumferentially continuous thereafter at said first end.~~

4. ~~The fusion device of claim 3, wherein:~~  
~~said body includes a second end opposite said first end; and~~  
~~said flat side walls terminate at said second end.~~

5. The fusion device of claim 4, wherein said opposite side walls each define a notch at said second end configured to receive a driving tool for implanting said device.

6. The fusion device according to claim 1, wherein said body is formed of a porous biocompatible material to permit bone tissue ingrowth into the device.

7. The fusion device according to claim 6 wherein said material is a composite comprising an open-celled substrate having interconnected porosity, said substrate infiltrated with a metal.

8. The fusion device according to claim 7 wherein said substrate is a carbonaceous material.

9. The fusion device according to claim 8 wherein said substrate is a carbon foam.

10. ~~The fusion device according to claim 7 wherein said metal is a group VB metal or an alloy of said group VB metal.~~

11. The fusion device according to claim 10 wherein said metal is tantalum.

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~~12. A fusion device for facilitating arthrodesis in the disc space between adjacent vertebrae, comprising:~~

~~an elongated body having a length, a first diameter at a first end and a larger second diameter at a second end opposite said first end, said first and second diameters sized to be greater than the space between the adjacent vertebrae;~~

~~said body having an outer surface tapered from said first diameter to said second diameter with external threads defined thereon and extending substantially entirely along said length of said body.~~

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13. The fusion device according to claim 12, wherein said body is formed of a porous biocompatible material to permit bone tissue ingrowth into the device.

14. The fusion device according to claim 13 wherein said material is a composite comprising an open-celled substrate having interconnected porosity, said substrate infiltrated with a metal.

15. The fusion device according to claim 14 wherein said substrate is a carbonaceous material.

16. The fusion device according to claim 15 wherein said substrate is a carbon foam.

~~17. The fusion device according to claim 14 wherein said metal is a group VB metal or an alloy of said group VB metal.~~

18. The fusion device according to claim 17 wherein said metal is tantalum.